

ATSO003647 3/28/68 63/000/033/0029/0033

V. I. Belenko, R. M. Krylov, A. G. Panferov, I. M. Romanova,
Y. Ye. Shikina, Z. S.

[Results of Satellite Observations]

E + 1

SOURCE: AN SSSR. Astronomicheskii sovet. Byulleten'stantsiy opticheskogo
nabliydeniya kussatvennykh sputnikov Zemli, no. 33, 1968. 29-33

TOPIC TAGS: artificial satellite, satellite tracking, satellite tracking camera/
satellite 1960, NAPA 1a/25 camera, KIM 5 microscope, Ural computer

Observations were made on the satellite 1960, during August and October
1968. A 1a/25 camera was used. The observer was A. G. Krylov. Measurements
were made with a KIM-5 microscope by R. M. Belenko, I. M. Panferov, and Z. S.
Shikina. Computations were made by the Kiselev method for the rate of three
coordinates and by the Turner method. Y. Ye. Shikina made the observations on
the satellite. Observation times were reduced to standard time. The last col-
umn shows possible maximal error in coordinates because of uncertainty
in the optical center within 1 cm. V. I. Belenko and Z. S. Shikina
participated in the work. Results of 125 observations are given in a table, part

Card 1/3

1971-1972

... on the Enclosure. ...

... Zvenigorodskaya stantsiya Astronomicheskogo soveta AN SSSR
... of the Astronomical Council AN SSSR

...

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Avenigorodka Station of the Astronomical
Council AN SSSR

[illegible]

125 32,753	0.06	08 16 11.1	11 4.53
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Card 2.3

SECRET

Belenko, R. M., Krylov, A. P., Panferov, I. M., Romanova, I. A., Shchegolev, J. I., and others.

Observations on the satellites 1961-62, 1962-63, 1963-64, and 1964-65.

[illegible]

satellite, satellite track, satellite tracking camera/

а) в) с) диаметр, КИМ 3 microscope, Гра. комп. 10

as it was made in the 1940s and 1950s, and it is not a

TABLE 1. The Table ABOVE contains the following information:

AT510354

4. The unreliability of determining optical center within 1 mm. V. I. Belenke
and A. A. Kuznetsov participated in the work. Results of the measurements are given
in Table 1. The results are reproduced on the accompanying drawing (Fig. 1, Table 1).

... (Antalya Astronomicheskogo Soveta AN SSSR, Institute of the
... (Soviet Academy of Sciences, USSR)

1996

2704 vi

ଉତ୍ତମ ଗୁଣବତ୍ତା: ୯୪, ୫୫

[illegible]

OTHER: 000

STATION NR: AT9001549

AT 9001549

Station of the Astronomical Council, AF 9001

Date		U. T.		L. T.		M. T.	
1961							
1. August	3	23 ^h 11 ^m 00 ^s .692	0 ^s .005	20 ^h 15 ^m 24 ^s .8	20 ^h 06 ^m 58 ^s	12 ^m	
.....							
1960 L ₁							
76. August	10	19 01 58.329	0.005	22 18 09.3	07 38 16	16	

Card 3/3

AT 5003547

... participated in the work. Results of 121 observations are given in ...
... shown on the enclosure. ...

... Astronomical Observations ...
... 11 AM 1962

SUBMITTED: 02 Nov 62

ENCL: 01

SUB CODE: SV, DC

OTHER: 000

AT5000547

AN LAMURE: 01

Station of the Astronomical Council AN SLP

Name	C.T.	Δ I	α (h m s)	δ (° ' ")	Type
<u>1960</u>					
1	20 ^h 50 ^m 56 ^s .404	+0 ^s .000	20 ^h 50 ^m 56 ^s .4	+0° 00' 50"	I
2	22 29 52.794	0 .006	22 29 52.8	+0° 00' 52"	II

Page 1/3

PI-2 ENT(1)/ENT(4)/FBD/FSF(4)/FAS-2 FAS(4) -1 FAS(4) -2/ENT(4) -2/ENT(4)/

TITLE: none

AN SSSR. Astronomicheskiy sovet. Byulleten' shtatnykh opticheskogo
i radiofizicheskikh sputnikov Zemli, no. 1, 1967, p. 38.

satellite, satellite tracking, satellite tracking camera, satellite microscope, etc. Miller, Walter

Observations were made on the satellite from July and August '96.

camera was used. Observers were A. G. Knyazev and V. A. Yurevich.

автор: д-р М. Балабанов и д-р А. Балабанов, изд. 1979 г. 110 стр.

quite by the Krasov method. It is also possible to use a single

[illegible]

1. The first group of respondents (n = 10) was composed of students who had completed the course and were currently employed in a related field. The second group (n = 10) was composed of students who had completed the course and were currently not employed in a related field. The third group (n = 10) was composed of students who had not completed the course and were currently not employed in a related field. The fourth group (n = 10) was composed of students who had not completed the course and were currently employed in a related field. The fifth group (n = 10) was composed of students who had not completed the course and were currently not employed in a related field. The sixth group (n = 10) was composed of students who had not completed the course and were currently employed in a related field. The seventh group (n = 10) was composed of students who had not completed the course and were currently not employed in a related field. The eighth group (n = 10) was composed of students who had not completed the course and were currently employed in a related field. The ninth group (n = 10) was composed of students who had not completed the course and were currently not employed in a related field. The tenth group (n = 10) was composed of students who had not completed the course and were currently employed in a related field.

1. The National Labor Union, Inc., is a labor union.

and in the last column refer to the number of days in 25

[illegible]

ADMISSION NO: AT5005548

ENCLOSURE: 01

Station of the Astronomical Council AN SSSR

No.	Date	U. T.	ΔT	α (1950.0)	δ (1950.0)	
1.	July 29	20 ^h 28 ^m 26 ^s .532	± 0.005	22 ^h 31 ^m 35 ^s .0	14 ^o 32'19"	I
.....						
187.	August 8	23 23 43.768	0.007	23 57 11.7	-18 46 05	16 II

Card 3/3

CLASSIFICATION: AT5005775

S/28.6/63/000/036/0031/0033

AUTHORS: Belenko, R. M.; Krylov, A. G.; Panferov, I. M.; Sentsova, Yu. Ye.;
Shilkina, Z. S.; Yurevich, V. A.

60

[Results of Satellite Observations]

Astronomicheskii sovet. Byulleten' statisticheskogo
 nablyudeniya iskusstvennykh sputnikov Zemli, no. 35, 1963, 1-53

TOPIC TAGS: artificial satellite, satellite tracking camera, satellite track
analysis, satellite 1961-01, satellite 1961-02, satellite 1962-01, satellite
1962-02, satellite 1962-03, satellite 1962-04, NAPA 1a, 1b camera, KIM-3 microscope,
KIM-3 microscope, Ural-1 computer

Observations were made in April, May, and June 1963 on the satellites
 1961-01, 1961-02, 1962-01, 1962-02, 1962-03, and 1962-04. The observers were
 A. G. Krylov (indicated by II in the table) and V. A. Yurevich (I in table). Both
 used NAPA-1a 1b cameras. Measurements were made by R. M. Belenko with a KIM-3
 microscope. I. M. Panferov with a KIM-3 microscope. The work was done by
 Yu. Ye. Sentsova using a Ural-1 computer. For

1975

REF ID: A5005775

of the computed coordinates, the coordinates of one reference star were
 compared with the coordinates of points in the satellite track. The next
 column of the table shows deviation of the computed coordinates of the
 stars from the coordinates given in the Ephem. and some of these deviations
 were reduced to standard deviation. The next column shows the
 standard deviation of the computed coordinates of the stars from the
 coordinates given in the Ephem. and some of these deviations

U.S.S.R. Astronomicheskii sovet AN SSSR (Stantsiya No. 11). The Astronomical
 Observatory, Leningrad, U.S.S.R. (Stantsiya No. 1072).

EXCITATION: 000000

ENCL: 01

SUB CODE: SV, DC

OTHER: 000

OTHER: 000

The Astronomical Council of the AN SSSR
(Station No. 1072)

Camera

1961 α E₁

1962

April	20	23 ^h 44 ^m 25.277 ±0.03	18 ^h 40 ^m 58.8	14° 11' 17"	II
June	10	20 44 33.193 ±0.01	22 21 16.1	34 51 00	II

KRYLOV, A.G.

Classification of cedar forests in the Altai. Izv. SO AN SSSR
no.2 Ser. biol.-med. nauk no.2:40-47 '64 (MIRA 18:1)

1. Institut lesa i drevesiny Sibirskogo otdeleniya AN SSSR,
Krasnoyarsk.

REF ID: A75012011

...for living, working, and maintenance of ... were ... of
... Kurile Islands. The ... stations
... observation ...
...
...
...

ASSOCIATION: Astronomicheskiy sovet, AN SSSR (Astronomical Council, AN SSSR,

DATE: 20 Apr 64.

ENCL: 00

REF ID: DL ES

REF ID: 005

OTHER: 000

Card 2/2

ACC NR: AP6014954

SOURCE CODE: UR/0227/65/000/008/0023/0025

AUTHOR: Yeliseyev, Yu. A.; Voroshilin, Ye. A.; Blyevets, N. L.; Krylov, A. G. 24
B

ORG: none

TITLE: Construction of a container glassware storage warehouse of reinforced concrete

SOURCE: Promyshlennoye stroitel'stvo, no. 8, 1965, 23-25

TOPIC TAGS: reinforced concrete, construction, lacquer, corrosion protection

ABSTRACT: A description is given of the construction of a 24 X 48 meter warehouse with supporting frame made of prefab arches each consisting of six straight sections of reinforced concrete, bolted together. The prefab sections were compacted, heat-hardened for 4 hours at 70°C, reinforced with steel mesh and given an anti-corrosion coating of bituminous lacquer. They were then stored in special holding racks, in which they were also transported to the construction. Photographs show the forming, transporting and assembly of the individual straight sections into arches, as well as the completed warehouse. A table shows the expenditure of materials manpower and money per square meter of horizontal projection involved in the construction. Orig. art. has: 5 figures and 1 table. [JPRS]

SUB CODE: 13 / SUEN DATE: none

Card 1/1 BK

UDC: 624.023.8:725.35

USSR / Forest Science. Biology and Typology of Trees.

K-2

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 77487

Author : Krylov, A. G.

Inst : West Siberian Branch, AS USSR

Title : On Types of Dark Conifer Forests in the Biya River Basin

Orig Pub : Tr. po lesn. kh-vu Zap. Sibiri. Zap.-Sib. fil AN SSSR,
1957, vyp. 3, 167-174

Abstract : Fir and cedar types of forest developed in the summer of 1956 in the Biya River Basin are briefly characterized. In the group of shortgrass variety firs, there were noted fern-sedge, sandle-wood sorrel poplar fir. In the group of mixed firs, spiraea-bracken-herbaceous fir were noted. In the cedar forests, there were isolated: cedar-whortleberry, herbaceous-mossy cedar, wood sorrel-mossy cedar (group of mossy cedars); fern-sedge cedar (group of grass variety cedars); fern-beach grass cedar and herbaceous

Card 1/2

KRYLOV, A.G.

Moscow Automobile Plant at the 40th anniversary of the October Revolution. Avt.1 trakt.prom. no.10:8-13 0 '57. (MIRA 10:12)

1. Moskovskiy avtosavod imeni Likhacheva.
(Moscow--Automobile industry)

KRYLOV, A.G.

Automatic machines in shops of the Likhachev Automobile
Plant. Za rul. 17 no.8:3-5 Ag '59. (MIRA 12:12)

1. Direktor avtomobil'nogo zavoda im. I.A.Likhacheva.
(Moscow--Automobile industry)
(Automation)

CHUMAKOV, N.M., red.; KIREYEV, M.I., red.; AKULOV, Ye.F., red.;
IVANOV, N.N., red.; KNYAZEV, P.I., red.; CHICHILO, I.K.,
red.; KRYLOV, A.G., red.; GLUSHKO, G.I., tekhn. red.

[Safety engineering regulations for operating and servicing
electrical systems of industrial enterprises required for
the industrial plants of economic councils, ministries, and
departments] Pravila tekhnicheskoi ekspluatatsii i bezopasnosti
obsluzhivaniia elektroustanovok promyshlennykh predpriatii;
obiazatel'ny dlia promyshlennykh predpriatii sovmarkhozov,
ministerstv i vedomstv. Uтверждены 10 февраля 1961 г. Мо-
сква, Днепропетровское книжное изд-во, 1962. 279 p.

(MIRA 16:3)

1. Russia (1923- U.S.S.R.) Glavnoye energeticheskoye upravle-
niye.

(Electric power distribution--Safety regulations)

ERYLOV, A.I.

New type of roller feed. Kuz.-shtam. proizv. 3 no.11:41-42 H
'61. (MIRA 14:11)

(Feed mechanisms) (Forging machinery)

KRYLOV, A.I.

The A522A, A520 and A521 automatic muff-type spring-coiling machines. *Biul.tekh.-ekon.inform.* no.12:33-35 '61. (Mil. 14:12)
(Springs (Mechanism))

KRYLOV, A.I., inzh.

Modernizing the engaging friction clutch. Vest.mash. 41 no.7:88
Jl '61. (MIRA 14:6)
(Clutches (Machinery))

L 19638-63
ACCESSION NR: AP3007063 EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pr-4 JD
S/0056/63/045/003/0464/0468

AUTHORS: Zherebin, Ye. A.; Krylov, A. I.; Polikarpov, V. I.;
Yuzvuk, N. N. 69
63

TITLE: Investigation of the gamma radiation¹⁹ from Cs-140

SOURCE: Zh. eksper. i teoret. fiziki, v. 45, no. 3, 1963, 464-468

TOPIC TAGS: Cs-140, gamma radiation, short-lived fragment, spectral line

ABSTRACT: A method for investigating the gamma rays from the short-lived (half-life 66 sec) fragment Cs^{140} is described, along with the gas loop used to supply the Xe and Kr to the measurement place and to enrich the mixture of the decay product with the investigated fragment product. The Cs^{140} was investigated by a high-speed chemical separation of the cesium. The lines 0.59 ± 0.01 , 0.88, 1.14, 1.62, 1.85, 2.06, 2.32, 2.72, 3.15 MeV were observed as a result in

Card 1/02/

L 19638-63

ACCESSION NR: AP3007063

the gamma rays. "In conclusion, the authors thank Ye. A. Tamonov
and O. V. Chubakov for useful discussions and advice, and also A. N.
Draskov, A. G. Dudoladov, Ye. A. Gershanov, and A. V. Morozov for
directly participating in the experiments." Orig. art. has 6
figures. 6

ASSOCIATION: None

SUBMITTED: 29Mar63

DATE ACQ: 08Oct63

ENCL: 01

SUB CODE: PH

NO REF SOV: 001

OTHER: 002

Card

2/82

22

Mineral oil that can be removed easily from fabrics
A. I. Krylov and N. R. Nosnikova. *Prum. Lubyanykh*
Tekhnika 1939, No. 7, 30; *Khim. Refrat. Zhur.* 1940, No.
1, 113. Coarse and bleached yarn were said with 6
grades of mineral oil and made into cloth No. 216. The
cloth was boiled in lime water and twice in alkali, washed,
alkalised, acidified, starched and dried. The oil
Vol'ia L is most easily removed, and is recommended for
lubricating spinning and weaving machines.
W. R. Henn

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

BRAGA, D. T., Eng.; KRYLOV, A. I.; SIUSHAYENKO, E. I.

Knitting Machines

Single-process method of making socks with flat knitting machines. Leg. prom.
12 No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December ¹⁹⁵²~~1953~~, Uncl.

KHOLODOV, Vladimir Ivanovich; KRYLOV, Aleksandr Ivanovich; YEPIMAKHOVA,
M.Ya., red.; LEONOVA, L.P., tekhn. red.

[Through the years (1858-1958)] Skvoz' gody, 1858-1958 gg.
Vladimir, Vladimirskoe knizhnoe izd-vo, 1958. 97 p. (MIRA 12:9)
(Sobinka--Textile workers)

KOZENKO, K.M., inzh.; KRYLOV, A.I., inzh.; BHILOUS, N.G., inzh.

New techniques used in manufacturing warp-knitted artificial furs.
Izv.vys.ucheb.zav.; tekhnolog.pron. no.6:75-85 '58. (MIRA 12:4)

1. Tsentral'naya nauchno-eksperimental'naya laboratoriya trikotazh-
noy promyshlennosti Gosplana USSR.
(Fur, Artificial)

KOZENKO, K.M.; KRYLOV, A.I.; BELOUS, N.G.

Developing the technology of knitting pile fabrics for artificial fur. Tekst.prom. 19 no.1:44-47 Ja '59. (MIRA 12:1)
(Knitting, Machine) (Fur, Artificial)

SMIRNOV, Leonid Stepanovich; GONTARENKO, Aleksandr Nikolayevich;
GORDIYENKO, Mariya Georgiyevna; KRYLOV, Aleksandr Iosifovich;
NOVAK, Nikolay Stepanovich; LYASHCHENKO, T.V., red.; STARODUB,
T.A., tekhn. red.

[Manufacture of artificial fur] Proizvodstvo iskusstvennogo
mekha. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1961. 138 p.
(MIRA 15:4)

(Artificial fur)

KRYLOV, A.I. [Krylov, O.I.]; SKIBA, L.A.

Economic efficiency of the manufacture and use of nylon yarn
produced with a simplified method. Ish. prom. no. 4:66-69
O-D '65. (MIRA 19:1)

L 29431-56 ENP(k)/EnI(a)/EnI(m)/ENP(D)/I/ENP(I)/ENP(v)/ENP(t)/ETI JD/AM

ACC NR: AP6018011

(A)

SOURCE CODE: UR/0413/66/000/010/0126/0126

INVENTOR: Voronin, G. I.; Slotin, V. I.; Zaretskiy, B. S.; Krylov, A. I.;
Shvetsov, P. N.; Barannikov, G. I.; Eskin, G. I.

4D
B

ORG: none

TITLE: Ultrasonic unit for fluxless brazing of metals. Class 49, No. 181967

SOURCE: Izobreteniya, promyshlennyye obraztsey, tovarnyye znaki, no. 10, 1966, 126

TOPIC TAGS: brazing, metal brazing, ultrasonic brazing, brazing unit

ABSTRACT: This Author Certificate introduces a unit for fluxless brazing of metals equipped with a heater and ultrasonic emitter. To increase efficiency, the ultrasonic

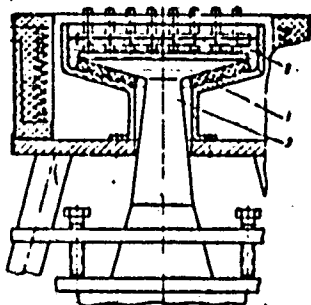


Fig. 1. Fluxless brazing unit

1 - Crucible; 2 - brazing alloy;
3 - ultrasonic emitter.

Card 1/2

UDC: 621.791.351.6.03

L 29931-66

ACC NR: AP6018011

emitter is located inside the crucible containing molten brazing alloy, forming the bottom of the latter (see Fig. 1.). Orig. art. has: 1, figure.

[A2]

SUB CODE: 11,13/SUBM DATE: 29Jan65/ ATD PRESS: 5011

Card 2/2 CC

KRYLOV, A.X.

The KBK-1,0 combine for bean harvesting. Biul.tekh.-ekon.inform.
no.2:55-56 '58. (MIRA 11:4)

(Combines (Agricultural machinery))
(Beans--Harvesting)

[illegible]

NY 100-2165-173

ERIKOV, A.I.; KOLPVOLOV, G.S.

Numerical study of liquid flow between rotating cylinders. Sbor.
rab. VTS NGU 2:174-181 '63. (002 17:7)

KRYLOV, A.I.; MISNIK, A.F.

Stability of viscous flow between two rotating cylinders. Sbor.
rab. VTS MGU 2:182-189 '63. (MIRA 17:7)

AUTHOR: Krylov, A.L.

20-1-10/4

TITLE: The Boundary Value Problem for the Nonlinear Equation of Second Order in a Bounded Domain with a Degenerate Boundary. (Pervaya Krayevaya zadacha dlya nelineynogo ellipticheskogo uravneniya vtorogo poryadka ogranichennoy oblasti s vyrozhdennoy granitsey)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 115, Nr 1, pp.42-44 (USSR)

ABSTRACT: The present paper treats this problem for the Lagrange equation of a certain variation problem. In contrast to the linear case the boundary values in the case of a very large class of nonlinear problems may be assumed on varieties with any dimension number, provided that this dimension number is smaller than the dimension number of the initial space. E.g. the boundary in the two-dimensional case may consist of a closed line bounding the domain and of a finite number of smooth lines within this domain. The obtained solutions are continuous in such a domain and in the case of smooth integrands they are solutions in the classical sense. Reference is made to some relevant earlier works. The author here examines the following example: K signifies the circle of unit radius on a plane with a cut-out center in the origin of coordinates and

Card 1/3

The Boundary Value Problem for the Nonlinear Equation of Second Order in a Bounded Domain with a Degenerate Boundary. 20-1-10/4

$I(u) = \iint_D \{ \alpha(u_x^2 + u_y^2)^2 + \beta(u_x^2 + u_y^2) \} dx dy$ applies. The function $u_0 \in W_4^{(1)}(K)$ is sought which on the boundary K assumes the values $\varphi(\gamma)$ when $x^2 + y^2 = 1$, φ_0 when $x^2 + y^2 = 0$. In this connection $\varphi(\gamma)$ is attainable (allowable) for $W_4^{(1)}$. When $\alpha = 0$, this problem has a solution. When $\beta > 0$, $\alpha > 0$ the problem is regular, i.e. in the case of a smooth solution it is reduced to a non-degenerate elliptical equation. In the case of $\varphi(\gamma) = 1$ and $\varphi_0 = 0$ the solution $u(x,y) = u(\sqrt{x^2 + y^2}) = u(r)$ satisfies the equation $u'(r)^3 + u'(r) = c/r$, $c > 0$, $r > 0$.

A solution $u(x,y)$ of the variation problem is determined here which takes the assumed values on the boundary of K and this $u(x,y)$ is a unique solution of the variation problem smooth in K . A relevant theorem is given. This theorem can be generalized to the case that F (in the above-mentioned formula) depends on independent variables and functions, and it permits a considerable weakening of the other conditions. There are 6 Slavic references.

Card 2/3

The Boundary Value Problem for the Nonlinear Elliptic Equation of Second Order in a Bounded Domain with a Degenerate Boundary. 20-1-10/54

ASSOCIATION: Moscow State University imeni M.V.Lomonosov (Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova)

PRESENTED: January 28, 1957 by S.L.Sobolev, Academician

SUBMITTED: January 26, 1957.

AVAILABLE: Library of Congress

Card 3/3

KRYLOV, A.L., Cand Phys Math Sci -- (dis.) "First boundary ^{of field}
problem for certain quasi-linear equations in ~~the~~ ~~anterior~~
with degenerated boundary." Mos, 1958, 8 pp (Mos State Univ
im M.V. Lomonosov. ~~Mechanics~~ ~~Mathematics~~ Faculty) 150 copies
Bibliography at end of text (11 titles) (KL, 27-58, 102)

- 15 -

AUTHOR: Krylov, A. L. 20-118-5-9/59

TITLE: Propagation of Limit Equilibrium in the Axially-Symmetrical Two-Dimensional Elastic-Loose Body Case (Osesimmetricheskaya ploskaya uprugosypuchaya zadacha rasprostraneniya sostoyaniya predel'nogo ravnovesiya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 5, pp. 882-883 (USSR)

ABSTRACT: § 1: The setting of the problem and the hypothesis of motion: The author here investigates the two-dimensional deformed state of a medium which fills the external part of the circle of unit radius on the x,y-plane. In the case of low stresses the medium is described by the equations of linear elasticity theory, in the case of greater stresses, however, the medium adopts loose properties. Starting at the moment $t = 0$ the sector begins to swell according to the law $r = r_1(t)$, $r_1(0) = 1$, and to rotate according to the law $\Psi = \Psi_1(t)$, $\Psi_1(0) = 0$. Here Ψ_1 denotes the rotation angle of

Card 1/4

Propagation of Limit Equilibrium in the Axially-Symmetrical Two-Dimensional Elastic-Loose Body Case 20-118-5-9/59

the surroundings of the sector. The stress and the displacement in the elastic and in the loose zone are to be determined as well as of the boundary $\gamma(t)$ between these zones, furthermore the admissibility of the boundary conditions $\{r_1(t), \psi_1(t)\}$ for the maintenance of the equilibrium on the boundary is to be investigated. Two hypotheses of motion were used for the solution of this problems: the hypothesis by Mises (Mises), and a hypothesis by the author which runs as follows: The agreement of the direction of the maximum displacement velocity with one direction of the slide lines (i.e. with those forming the smallest angle with the limit on the boundary) is suggested, at the same time maintaining the incompressibility condition. The problem without rotation is instable in the hypothesis discussed here; in the case of presence of a small rotation the movement differs considerably from mere swelling. § 2 solves the problem with swelling explicitly for both hypotheses. The solution of the problem by means of the hypothesis of Mises (Mises) leads to a paradoxical conclusion on the unlimited capability of loosening of the

Card 2/4

Propagation of Limit Equilibrium in the Axially-Symmetrical
Two-Dimensional Elastic-Loose Body Case

20-118-5-9/59

medium for great radii of the sector. § 3 gives the equations of equilibrium which are to be integrated in the solution of the problem with rotation in the loose zone. In the elastic zone the solution is described by formulae by S. Sobolev (Ref 1). Then a differential equation for the determination of the displacement is given on the condition of the author's hypothesis. If the stability of the stress tensor, the displacements, and of the velocities is used for $\gamma(t)$, a closed system of equations is obtained for the determination of the unknown time functions. All unknown functions are finally expressed by the solution $A(t)$ of the Cauchy problem for an integral-differential equation given here. § 4 investigates quite briefly the admissibility of boundary movement. In the rotation of the boundary with given velocity the slide lines touch the boundary. In the case of increasing velocity the boundary of the medium ruptures along the slide lines. There are 4 references, 4 of which are Soviet

Card 3/4

Propagation of Limit Equilibrium in the Axially-Symmetrical
Two-Dimensional Elastic-Loose Body Case

20-118-5-9/59

PRESENTED: September 5, 1957, by S. L. Sobolev, Member, Academy of
Sciences USSR

SUBMITTED: December 24, 1955

Card 4/4

AUTHOR: Krylov, A.L.

20-119-5-6/59

TITLE: Boundary Value Problems and Biorthogonal Decompositions in Banach Spaces (Krayevyye zadachi i biortogonal'nyye razlozheniya v banakhovyykh prostranstvakh)

PERIODICAL: Doklady Akademii Nauk^{SSSR}, 1958, Vol 119, Nr 5, pp 865-867 (USSR)

ABSTRACT: With the aid of the theorem of Calderon and Zygmund [Ref 3] on the conditions for the boundedness of the singular integral operator J:

$$Jf \equiv \int_{\Omega} k(P,Q)f(Q)dQ$$

the author succeeds in extending essentially the results of Vishik [Ref 2] basing on the use of the orthogonal projections. While Vishik at first obtained a biorthogonal decomposition of the considered space on a geometric way and then applied it to the solution of boundary value problems, the author at first solves the boundary value problem with the aid of the theorem of Calderon-Zygmund, wherefrom then there follows the decomposition. The representation is made with the example of the Laplace equation, but it remains true for equations of higher order and also for systems with smooth coefficients.

Card 1/2

There are 7 references, 5 of which are Soviet, 2 American.

Boundary Value Problems and Biorthogonal Decompositions in Banach Spaces 20-119-5-6/59

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University im. M. V. Lomonosov)

PRESENTED: November 23, 1957, by S. L. Sobolev, Academician

SUBMITTED: November 22, 1957

Card 2/2

AUTHOR: Krylov, A.L. SOV/20-121-5-7/50

TITLE: On a Necessary and Sufficient Condition that a Function Belong to the Class $W_p^{(1)}$ of Sobolev (Ob odnom neobkhodimom i dostatochnom priznake prinadlezhnosti funktsii klassu $W_p^{(1)}$ Soboleva)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 5, pp 795-796 (USSR)

ABSTRACT: In the domain Ω with the boundary Γ let the imbedding theorems [Ref 3] be valid (e.g. let Γ be smooth). Let Ω be subdivided by the straight lines $x = x_i, i=0,1,\dots,m-1; y = y_j, j=0,1,\dots,n-1$; let δ be the smallest distance between the parallel straight lines of the subdivision. Let a continuous function $F(x,y), (x,y) \in \Omega$ be of bounded p -variation ($p \geq 2$) if the sums

$$\sum_{i,j} \frac{|F(x_i+h, y_j) - F(x_i, y_j)|^p}{h^{p-2}}, \quad \sum_{i,j} \frac{|F(x_i, y_j+h) - F(x_i, y_j)|^p}{h^{p-2}}$$

are bounded from above by a number B not depending on the subdivision and on $h (h \leq \delta/2)$. It is summed over the points (x_i, y_j) lying in Ω with its δ -neighborhood.

Theorem: In order that a function belongs to the class $W_p^{(1)}$

Card 1/2

On a Necessary and Sufficient Condition that a Function Belong SOV/20-121-5-7/50
to the Class $W_p^{(1)}$ of Sobolev

it is necessary and sufficient that it is of bounded p-variation.
There are 3 references, 2 of which are Soviet, and 1 Hungarian.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova
(Moscow State University imeni M.V. Lomonosov)

PRESENTED: April 19, 1958, by S.L. Sobolev, Academician

SUBMITTED: April 7, 1958

Card 2/2

16(1)

AUTHOR:

Krylov, A.L.

SOV/20-124-2-5/71

TITLE:

First Boundary Value Problem for Some Quasilinear Equations of Parabolic Type in the Banach Space (Pervaya krayevaya zadacha dlya nekotorykh kvazilineynykh uravneniy parabolicheskogo tipa v banakhovom prostranstve)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 2, pp 264-267 (USSR)

ABSTRACT: Let Ω be a bounded domain of the n -dimensional space $x = (x_1, \dots, x_n)$ with the boundary Γ consisting of manifolds of $m-1, m-2, \dots, 1, 0$ dimensions. Let $Q = \Omega \times [0, T]$ be a cylinder in the space (x, t) . In Q the author considers the equation

$$(1) \quad u_t - \sum_{i=1}^m \frac{\partial}{\partial x_i} (F_{u_{x_i}}(u_{x_1}, \dots, u_{x_m})) = f(x, t)$$

with the boundary conditions

$$u|_s = 0 \quad u|_{t=0} = \varphi(x),$$

where $s = \Gamma \times [0, T]$. It is assumed that for Ω and Γ there hold the imbedding theorems of Sobolev, that for a restriction to smooth

$u(x, t)$ the functionals $\int_{\Omega} F dx$ and $\int_Q F dx dt$ are uniformly convex,

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First Boundary Value Problem for Some Quasilinear Equations of Parabolic Type in the Banach Space SOV/20-124-2-5/71

and that $\sum_{x_1, x_k} F_{u_{x_1} u_{x_k}} \cdot \xi_1 \xi_k \geq \mu \sum \xi_1^2$, $\mu > 0$. The author proves

the existence of a unique generalized solution of (1). The proof is made according to the method of Galerkin supported by considerations of variation.

There are 3 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova
(Moscow State University imeni M.V.Lomonosov)

PRESENTED: September 1, 1958, by S.L.Sobolev, Academician

SUBMITTED: April 17, 1958

Card 2/2

ZHIDKOV, N.P.; KORNEYCHUK, A.A.; KRYLOV, A.L.; MOSTINSKAYA, S.B.

Plane-parallel motion of a viscous liquid between two rotating
cylinders. Vych. mat. i prog. 1:152-166 '62. (MIRA 15:8)
(Fluid dynamics)

KRYLOV, A.L.

Models involving a finite number of degrees of freedom for a certain class of problems in mathematical physics. (Difference systems involving a law of conservation). Dokl. Ak. Nauk 142 no.3:572-575 Ja '62. (MIRA 15:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom S.L.Sobolevym. (Mathematical physics) (Difference equations)

S/020/62/146/001/005/016
B112/B108

AUTHOR: Krylov, A. L.

TITLE: Argument establishing Dirichlet's principle for the first boundary value problem in the non-linear theory of elasticity

PERIODICAL: Akademiya nauk SSSR.. Doklady, v. 146, no. 1, 1962, 54 - 57

TEXT: The problem is to find a displacement vector $u(x)$ which agrees with a given vector φ at the boundary $D\Omega$ of the domain Ω and which corresponds to the minimum value of the integral

$\Pi(u) = \int_{\Omega} (\varepsilon^2/6k + \int_{\Gamma^2} g(\xi) d\xi) d\Omega$, where k is a constant, ε and Γ^2 are the linear and square invariants of the deformation tensor $\|\varepsilon_{ik}\|$ and of the deviation tensor $\|\varepsilon_{ik} - \delta_{ik}\varepsilon\|$, respectively, and where the function $g(\Gamma^2)$ is defined by the fundamental relations of the non-linear theory of elasticity in the following way: $D_{\varepsilon} = \psi D_{\sigma}$, $\psi = f(T)$, $T = 2g(\Gamma^2)\Gamma$. The components of the vector u are connected with those of the deformation

Card 1/2

Argument establishing Dirichlet's...

S/020/62/146/001/005/016
B112/B108

tensor by the usual relation $\epsilon_{ik} = (1/2)(\partial u_i / \partial x_k + \partial u_k / \partial x_i)$. The solvability of this problem is shown by means of a solving sequence $u_n \in W_\beta^{(1)}$, where β is defined by the representation $g(r^2) = B(r^2; (\beta-2)/2)$.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: March 28, 1962, by S. L. Sobolev, Academician

SUBMITTED: March 15, 1962

Card 2/2

AUTHORS: Zhidkov, N. P., Korneychuk, A. A., S/794/62/000/001/006/010
Krylov, A. L., Mastinskaya, S. B.

TITLE: The plane-parallel motion of a viscous fluid between rotating cylinders.

SOURCE: Vychislitel'nyye metody i programmirovaniye; sbornik rabot
 Vychislitel'nogo tsentra Moskovskogo universiteta. no. 1. Ed. by
 N. P. Trifonov, G. S. Roslyakov, and Ye. A. Zhogolev. [Moscow] Izd-vo
 Mosk. un-ta, 1962, 152-166.

TEXT: The paper is intended to investigate the motion of a fluid by means of
 the direct numerical integration of the nonlinear Navier-Stokes equations. The
 direct objective of the investigation is the case of a viscous incompressible fluid in
 an x, y, z space contained between two infinite cylinders having radii $R_1^2 \leq x^2 + y^2 \leq R_2^2$
 which rotate with different angular velocities. The behavior of the fluid in a plane
 solution (i. e., independent of z) is to be found. Upon establishment of the necessary
 matrix expression the solution of the problem on the machine "Strela" at the Comput-
 ing Center of the Moscow State University is described. The program consists of 4
 separate parts, (1) the shaping and the memory formulation of the distribution pro-
 gram, (2) the program of the calculating of coefficients, (3) the program of prepara-
 tion of the initial data, and (4) the program of the solution of the difference equations.

Card 1/2

The plane-parallel motion of a viscous fluid

S/794/62/000/001/006/010

Calculations were made for 4 Reynolds numbers, namely, 200, 500, 1,000, and 2,000, with different timewise steps. It was found that in the largest network employed the eddies smoothened out and the flow became smooth and trivial. The time of establishment grew proportional to the R number. In all probability this network was exceedingly crude and had its own viscosity. The use of a fine network revealed a turbulent motion, if the degree of turbulence is intended to signify the number of eddies in the flow. The amplitude of the perturbations decreases with time, but turbulence grows and new eddies are formed, even though with smaller amplitudes. Ultimately, the motion in the network becomes smooth, since the network does not admit eddies of a size smaller than the dimensions of the network. Future work will comprise a reduction of the size of the network by one-half. Thanks are expressed to I. M. Gel'fond, corresponding member, AS USSR, for overall direction of the work and many valuable specific advices. There are 4 figures and 1 Russian-language Soviet reference.

Card 2/2

ACCESSION NR: AT4006715

S/3043/63/000/002/0165/0173

AUTHOR: Krylov, A. L.

TITLE: Finite-dimensional models for equations of mathematical physics

SOURCE: Moscow. Universitet. Vysshislitel'nyy tsentr. Sbornik rabot, no. 2, 1963. Chislennyye metody v gazovoy dinamike, 165-173

TOPIC TAGS: finite dimensional model, energy conservation law, Cauchy problem, viscous incompressible fluid model, periodic boundary condition, mathematical physics equation

$$\frac{\partial}{\partial t} \left(\sum q_i L^0 q_i - L^0 \right) + \sum \frac{\partial}{\partial x_j} \left(\sum q_i U^j q_i - U^j \right) = 0$$

ABSTRACT: A broad class of partial differential equations of mathematical physics possesses the following property: the equations themselves express a law of conservation of certain physical quantities, and, in addition, a supplementary law of conservation arises as a consequence of the realization of the fundamental system (e.g., conservation of energy in crystal optics). Following the work of S. K. Godunov the author examines equations of the type

$$\frac{\partial L^0 q_i}{\partial t} + \sum_{j=1}^n \frac{\partial U^j q_i}{\partial x_j} = 0, \quad i = 1, 2, \dots, m, \quad (1)$$

$$L^k = L^k(q_1, q_2, \dots, q_m), \quad k = 0, 1, \dots, n.$$

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ACCESSION NR: AT4006715

The equations of crystal optics and others can be carried over to this form. The law of conservation fulfilled in the solutions of (1) is

(2)

the law of conservation of entropy or energy or, for the irreversible process, the dissipation of energy. The purpose of the present paper is to obtain finite dimensional models for such systems having "point" law energy conservation of type (2). A. N. Kolmogorov first dealt with this, regarding turbulence, for Navier-Stokes equations of a viscous incompressible liquid. It is possible that study of the ergodic properties of such a model would lead to conclusions for the laminar case, although the author knows of no such work. He first lets $|=j|=1$, which gives

$$\frac{\partial}{\partial t} A_q(q) + \frac{\partial}{\partial x} B_q(q) = \frac{\partial}{\partial x} \left(C(q) \frac{\partial q}{\partial x} \right) \quad (3)$$

(on the right is the dissipation member). For simplicity he examines the problem of Cauchy with periodicity in x :

$$\frac{\partial^2 q}{\partial x^2}(l, 0) = \frac{\partial^2 q}{\partial x^2}(l, l), \quad k = 0, 1 \quad (4)$$

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ACCESSION NR: AT4006715

Similarly, it should be possible to examine other boundary conditions and the case of an unrestricted x decreasing towards infinity. Transforming (3) and utilizing (4), an identity is established (the law of dissipation of energy). A finite-dimensional model of problem (3), (4), is constructed to permit similar transformations on a difference equation approximating (3). This is done by dividing the interval of periodicity into uniform segments and defining the desired functions q^k , their derivatives, and the derivatives of their functions at the division points. The transformation of equation (3) by approximation is described in detail. For general systems of the type:

$$\frac{\partial L q_l}{\partial t} + \sum_{j=1}^n \frac{\partial L q_l}{\partial x_j} = \sum_{j,l,s} \frac{\partial}{\partial x_j} b_{jl}^s \frac{\partial q_l}{\partial x_s}, \quad l = 1, 2, \dots, m \quad (5)$$

with symmetry and positively defined matrices, the constructions are carried through in the same fashion. Unfortunately, for more than one space variable, only a tetrahedral grid can be established. With reasoning similar to this, V. I. Lebedev was the first to use such a grid for the same goal. For simplicity, two space variables are considered. The differential operators are defined and discussed and the establishment of the grid system is described in detail. The results of applying this to equation (5) are given. Finally, the author examines the solution of the Navier-Stokes equation for viscous incompressible liquids. The author concludes that finite dimensional models probably can be used for sett-

Card

ACCESSION NR: AT4006715

ing down difference schemes with the same properties. He points out that, in the works of A. N. Tikhonov and A. A. Samarskiy, such schemes are constructed and studied for a very broad class of ordinary differential equations. Orig. art. has: 28 formulas.

ASSOCIATION: Vy*chislitel'ny* tsentr MGU (Computer center, Moscow State University)

SUBMITTED: 00

DATE ACQ: 16Dec63

ENCL: 00

SUB CODE: AI

NO REF SOV: 003

OTHER: 000

Card

4/4

ACCESSION NR: AT4006716

S/3043/63/000/002/0174/0181

AUTHOR: Kry*lov, A. L.; Proizvolova, Ye. K.

TITLE: Numerical study of flow between two rotating cylinders

SOURCE: Moscow. Universitet. Vy*chislitel'ny*y tsentr. Sbornik rabot, no. 2, 1963, Chislenny*ye metody* v gazovoy dinamike, 174-181

TOPIC TAGS: viscous incompressible flow, flow between rotating cylinders, flow equation numerical solution, finite difference approximation, successive approximation method, flow stability, axisymmetric flow, viscous flow, incompressible fluid, viscous incompressible fluid, viscous flow, incompressible flow, curved flow, recurrence formula

ABSTRACT: The authors have calculated the behavior of a streamlined flow of a viscous incompressible fluid between coaxial cylinders of infinite height, rotating at angular velocities Ω_1 and Ω_2 , in relation to definite relationships between Reynold's numbers Re_1 and Re_2 . The flow is assumed to be periodic in relation to height and asymmetric. The phenomena discussed occur within the Reynold's number range of 100 to 200. The problem was postulated in such a manner that the Reynold's number was governed by the non-dimensional viscosity factor ν . The authors attempted to clarify the periodic patterns possible at a fixed Reynold's

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ACCESSION NR: AT4006716

number ($\nu = 1/200$) and, particularly, to establish the presence of more intensive frequencies in a spectrum component which is unstable with respect to infinitely small turbulences. Calculations were made for the variants:

$$\gamma = \frac{1}{200}; H = 1, 21, 41, \left(l = \frac{\pi}{3,2} \right)$$

Results are illustrated by several graphs (see Figs. 1, 2, 3 and 4 in the Enclosure). "In conclusion, we express our gratitude to I. M. Gel'fand, whose influence and participation were evident in originating theoretical solutions to problems on the stability of flow of viscous fluids, as well as to S. B. Mostinskaya and Yu. Gormatyuk for their participation in programming." Orig. art. has: 4 graphs and 9 formulas.

ASSOCIATION: Vy*chislitel'ny*y tsentr MGU (Computer center, Moscow State University)

SUBMITTED: 00

DATE ACQ: 16Dec63

ENCL: 04

SUB CODE: AI

NO REF SOV: 003

OTHER: 001

Card 2/6

S/3043/63/000/002/0182/0189

ACCESSION NR: AT4006717

AUTHOR: Krylov, A. L.; Misnik, A. F.

TITLE: Stability of viscous flow between two rotating cylinders

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik rabot, no. 2, 1963. Chislennyye metody v gazovoy dinamike, 182-189

TOPIC TAGS: viscous flow stability, flow between rotating cylinders, Taylor flow equation, viscous incompressible flow, finite difference method, neutral curve equation, flow equation integration, viscous fluid, incompressible fluid, viscous incompressible fluid, flow stability equation, flow equation spectral property, viscous flow, incompressible flow, Taylor flow, curved flow stability

ABSTRACT: The article presents the results of numerical integration of the Orr-Sommerfeld equations for Taylor's flow. This concerns a flow of incompressible fluid between concentrically rotating cylinders of infinite height. The concepts of critical Reynold's number and neutral curve are defined. The latter was plotted in a plane (R, ω) , where R is the Reynold's number of a streamline flow and ω is the frequency of stability loss, while turbulence is written as $f(r)e^{i\omega t}$ (see graph in the Enclosure). Calculations were carried out on a "Strela" computer at the Vychislitel'nyy tsentr MGU (Computer center of Moscow State University).
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ACCESSION NR: AT4006717

University). It was found that the equation for stability of a Taylor flow exhibits spectral characteristics which differ strongly from those of the corresponding equation for a Poiseuille flow. Orig. art. has: 1 table, 1 graph, 6 formulas.

ASSOCIATION: Vy*chislitel'ny* tsentr MGU (Computer center, Moscow State University)

SUBMITTED: 00

DATE ACQ: 16Dec63

ENCL: 01

SUB CODE: AI

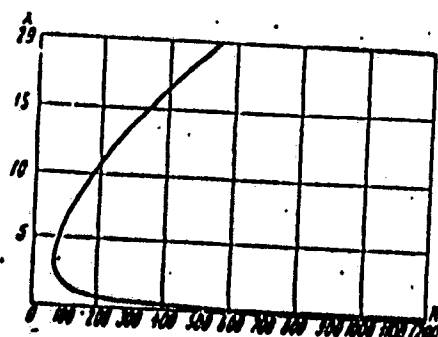
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OTHER: 005

Card 2/3

ACCESSION NR: AT4006717

ENCLOSURE: 01



Card 3/3

S/020/63/148/001/001/032
B172/B186

AUTHORS: Arnol'd, V. I., Krylov, A. L.

TITLE: Uniform distribution of points on a sphere and some ergodic properties of the solutions to ordinary linear differential equations

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 1, 1963, 9 - 12

TEXT: Δ denotes an arbitrary domain on a sphere S^2 ; x is a point of S^2 . Rotations A, B of S^2 are considered. The points $x, Ax, Bx, A^2x, ABx, BAx, B^2x, \dots$ are uniformly distributed on S^2 if

$$\lim_{n \rightarrow \infty} \frac{p_n(\Delta)}{2^n} = \frac{\text{mes } \Delta}{\text{mes } S^2} \quad (1)$$

where $p_n(\Delta)$ is the number of points of the sequence $A^n x, A^{n-1} Bx, A^{n-2} BAx, \dots, B^n x$ lying in Δ . If the points (1) are every-

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Uniform distribution of...

S/020/63/148/001/001/032
B172/B186

where dense on S^2 , then their distribution on S^2 is uniform. This theorem may be understood as an ergodic hypothesis in which a semi-group with two generatrices plays the role of time. The authors generalize this theorem; S^2 is replaced by a homogeneous space on which a compact Lie group is defined, whereas a free group with two generatrices or a group with three generatrices a, b, c , for which $abc = e$ is valid, is taken as "time". Then, sets of linear differential equations

$$\frac{dx}{dz} = A(z)x \quad \text{are considered}$$

(z - a complex variable, x - a vector (x_1, \dots, x_n) of the n -dimensional complex space, A - a matrix which, except for three singular points lying on a Riemann sphere, depends analytically on z). The following theorem is formulated: If the monodromic group of such a system is bounded, then the system has a unique first integral $(B(z)x, \bar{x}) = \text{const}$, where $B(z)$ is a positive definite, self-adjoint matrix. For Gauss' hypergeometric equation, the assumption of this theorem is fulfilled. Arising from this, the authors mention finally a number of unsolved problems.

Card 2/3

Uniform distribution of...

S/020/63/148/001/001/032
B172/B186

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: June 23, 1962, by A. N. Kolmogorov, Academician

SUBMITTED: June 18, 1962

Card 3/3

KRYLOV, A.L.

Proof of the instability of a certain flow of a viscous
incompressible fluid. Dokl. AN SSSR 153 no.4:787-789 D '63.

(MIRA 17:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
Predstavleno akademikom A.N. Kolmogorovym.

KRYLOV, A.L. (Moscow)

"Some of problems stability of viscous fluid flow".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - Feb 64.

KRYLOV, A.L.

Stability of Poiseuille flow in a plane channel. Dokl. AN SSSR
'59 no.5:978-981 D '64 (MIRA 18:1)

1. Moskovskiy gosudarstvennyy universitet. Predstavleno aka-
demikom A.N. Kolmogorovym

L 00362-66 EWT(1)/EWP(m)/EWA(d)/FCS(k)/EWA(1)

ACCESSION NR: AT6013285

UR/3043/65/000/004/0108/0114

AUTHOR: Krylov, A. L.

TITLE: Proof of the instability of Kuetta flow between rotating cylinders

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik rabot, no. 4, 1965.
Chislennyye metody v gazovoy dinamike (Numerical methods in gas dynamics), 108-114

TOPIC TAGS: Kuetta flow, laminar flow, cylindric flow, flow analysis

ABSTRACT: The flow of a viscous incompressible fluid between rotating coaxial cylinders is one of the most intensively and successfully studied problems concerning cases of loss of stability of laminar stationary flow and a subsequent transition to another laminar stationary flow. The problem concerning the stability of the laminar Kuetta flow reduces to the question of the existence in the system

with the boundary condition

$$\begin{aligned} (L - \lambda^2 - \sigma R)(L - \lambda^2)u &= 2\lambda^2 R \omega, \\ (L - \lambda^2 - \sigma R)v &= \lambda^2 u \end{aligned}$$

$$u = v = \frac{du}{dr} = 0 \quad r = R_l \quad (l = 1, 2)$$

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L 00362-66

ACCESSION NR: AT5013285

of an eigenvalue $\lambda(R, \lambda)$ in the right half-plane $\text{Re } \lambda > 0$. Here

$$L = \frac{d}{dr} \frac{1}{r} \frac{d}{dr} r, \quad R_1 < r < R_2,$$

and $R > 0$ is the Reynolds number; $\lambda > 0$. Taylor solved this problem numerically in 1923. The present paper brings a mathematically rigorous solution to the problem. Orig. art. has: 22 formulas.

ASSOCIATION: Vychislitel'nyy tsentr, Moskovskiy universitet (Computer Center, Moscow University)

SUBMITTED: 00

ENCL: 00

SUB CODE: ME, MA

NO REF SOV: 006

OTHER: 002

Card

2/2

KHYLOV, A.M.

"Treatment of the necrosis of soft cartilage."
SO: Vet. 27 (8) 1950, p. 47

KRYLOV, A.M.; SHIFRIN, A.M., inzh.

Over-all mechanisation in tempering shops. Mashinostroitel'
no.10:1-5 O '57. (MIRA 10:11)
(Automatic control) (Tempering) (Sverdlovsk--Bearing industry)

KRYLOV, A.M.

Use of LED disinfection units in Voronezh Province, Veterinariia
35 no.4:71-72 Ap '58. (MIRA 11:3)

1. Nauchal'nik veterinarnogo otdela Voronezhskogo oblastnogo uprav-
leniya sel'skogo khozyaystva.
(Disinfection and disinfectants)

KRYLOV, A N

PHASE I BOOK EXPLOITATION

SOV/4188

Alekseyev, Valentin Petrovich, Nikolay Ivanovich Kostygov, Mikhail Georgiyevich Kruglov, Aleksey Nikolayevich Krylov, Oleg Borisovich Leonov, and Georgiy Nikolayevich Mizernyuk

Dvigateli vnutrennego sgoraniya; opisatel'nyy kurs (Internal Combustion Engines; Descriptive Course) Moscow, Mashgiz, 1960. 451 p. 15,000 copies printed.

Ed. (Title page): A. S. Orlin, Professor; Ed. (Inside book): L. I. Yegorkina; Managing Ed. for Literature on Automotive, Tractor, and Agricultural Machine Building: I. M. Bauman, Engineer; Tech. Eds.: B. I. Model' and T. F. Sokolova.

PURPOSE: This textbook is intended for students at machine-building schools of higher education, and for personnel engaged in the production and operation of internal-combustion engines.

COVERAGE: The book describes the construction and operation of all the main types of reciprocating internal-combustion engines, and of individual

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Internal Combustion Engines; (Cont.)

SOV/4188

systems and mechanisms used in them. The book corresponds to the program of the course on "Internal-Combustion Engines" at the Moscow Higher Technical Institute imeni N. Ye. Bauman. V. P. Alekseyev wrote chapters V and VI; N. I. Kostygov, the introduction, section 2 of chapter I, and chapters II, III and IV; M. G. Kruglov, chapter VII (except sections 40 and 42), section 57 of chapter X, and chapters XII and XIII; A.N. Krylov, chapter VIII, and sections 40 and 42 of chapter VII; O. B. Leonov, section 1 of chapter I, and chapter IX; G. N. Mizernyuk, chapters X (except section 57) and XI. The authors thank Professor D. N. Vyrubov. There are 38 references: 35 Soviet, 2 English and 1 French.

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KRYLOV, A.N., starshiy prepodavatel'

Determining mechanical efficiency of an internal combustion engine by the running-out method. Izv. vys. ucheb. zav.; mashinostr. no. 4:212-216 '62. (MIRA 15:7)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Gas and oil engines—Testing)

KRYLOV, A. P., Candidate of Biological Sciences, All-Union Academy of Agricultural Sciences
imeni V. I. Lenin

"New Forms of Soya from Slowly Swollen Seed"

Doklady Vsesoyuz Ordona Lenina Akademii Sel'skhokhozyaystvennykh Nauk imeni V.I. Lenina
Vol 1, 1956 , pp 13-15

USSR / Human and Animal Pathology. Nervous System.
Central Nervous System.

S-2

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64758.

Author : Krylov, A. P.
Inst : Kishinev State Medical Institute.
Title : Morphological Changes in the Cerebrum in Primary
Tuberculosis.

Orig Pub: Tr. Kishinevsk. gos. med. in-ta, 1956, 5, 307-
312.

Abstract: A study was made of the cerebrum in patients who
died of primary tuberculosis. The nerve cells of
the II and III layers of the cortex of the pre-
central area suffer the most pronounced changes.
The changes in the cells of the Ammon's horn, the
optic tubercle, and the hypothalamic area also
have a prevailing character. However, in the hy-

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KRYLOV, A. I.

24(3)

PHASE I BOOK EXPLOITATION SOV/1643

Avayev, Sergey Aleksandrovich, Andrey Pavlovich Krylov, and
Boris Mikhaylovich Ozerskiy

Obshchaya elektrotehnika (General Electrical Engineering)
Moscow, Gosenergoizdat, 1959. 447 p. 100,000 copies printed.

Ed. (Title page): S.A. Avayev; Ed. (Inside book): M.P. Lepinskiy;
Tech. Ed.: K.P. Voronin.

PURPOSE: This book was approved by the Main Administration of
Specialized Secondary Schools, Ministry of Education, USSR,
as a textbook for tekhnikums other than those specializing in
electrical engineering.

COVERAGE: The book contains basic information on the concept of
the electric field, conductors, dielectrics, semiconductors,
capacitors, d-c circuits, magnetism, single-phase a-c circuits,
three-phase circuits, electrical measuring instruments, d-c
machines, transformers, induction motors, converters and

Card 1/15

General Electrical Engineering

80V/1643

amplifiers, electronic components, electric drives, electric lighting, electric power stations, substations and networks. The book also provides review questions and exercises and contains a number of laboratory experiments. The authors thank Professor B.A. Teleshev and the faculty of the Moskovskiy stankostroitel'nyy tekhnikum for their assistance and Engineer M.P. Lepilinskiy for editing the manuscript. There are no references.

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1. Electrically charged particles	19
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3. Conductors, dielectrics and semiconductors	30
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AVAYEV, Sergey Aleksandrovich, kand. tekhn. nauk; BELOV, Vladimir Pavlovich; ZINGMAN, Aleksandr Abramovich; MILOVIDOV, Nikolay Nikolayevich; SIDOROV, Yuriy Pavlovich; SIMIGIN, Petr Andreyevich; GARTUNG, S.V., retsenzents; KRYLOV, A.P., retsenzents; CHUGREYEVA, V.N., red.; VINOGRADOVA, G.A., term.red.

[Automatization of technological processes in the cotton industry] Avtomatizatsiya tekhnologicheskikh protsessov khlopkhatobumashnoi promyshlennosti. Moskva, Gizlegprom, 1963. 279 p. (MIRA 16:11)

(Cotton machinery) (Automation)

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Larger volume of transportation with a smaller expenditure of fuel; from the experience of the Southwestern Railroad. Zhel. dor. transp. 45 no.3:70-72 Mr '63. (MIRA 16:6)

1. Nachal'nik sluzhby lokomotivnogo khozyaystva Yugo-Zapadnoy zheleznoy dorogi (for Krylov).
2. Nachal'nik lokomotivnogo depo Darnitsa Yugo-Zapadnoy zheleznoy dorogi (for Kuz'menko).
3. Lokomotivnoye depo Darnitsa Yugo-Zapadnoy zheleznoy dorogi (for Vetrov).

(Railroads Management)
(Diesel locomotives)

BROVMAN, M.Ya.; RIMEN, V.Kh.; BELOV, Ye.M.; KRYLOV, A.P.; VOLKOGON, G.M.

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1. Yuzhno-Ural'skiy zavod tyazhelogo mashinostroyeniya (for Brovman, Rimen, Belov). 2. Orskiy zavod obrabotki tsvetnykh metallov (for Krylov, Volkogon).

(Rolling (Metalwork))

(Nonferrous metals)

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AVAYEV, Sergey Aleksandrovich; GAL'PERIN, Mikhail Moiseyevich;
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AGADZHANOVA, I.A., red.

[Fundamentals of mechanization and automation in the
textile industry] Osnovy mekhanizatsii i avtomatizatsii
proizvodstva v tekstil'noi promyshlennosti. Moskva, Izdi-
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Gostoptekhizdat, 1948, 416 pp, 3,000 copies.

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51792

PA 51792

USSR/Petroleum Industry
Oil Wells
Pumps

Jan 1948

"Automatic Operating Couplings," A. P. Krylov, G. V.
Isakov, 7 pp

"Bert Khovay" No 1

To avoid having falling plastic pressure affect the
output of a well, it is necessary to decrease the face
pressure correspondingly. Thus the depression remains
more or less constant. This is brought about fairly
easily in wells requiring deep pumping. Author ex-
plains the basic principles of new-type coupling for
pumps which do not operate in deep wells. This new-

16

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USSR/Petroleum Industry (Contd)

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type apparatus has given very satisfactory service
even under conditions where foreign material was in-
troduced into the bore.

MURAVEV, I. M. and KRYLOV, A. P.

Eksploatatsiia Neftianykh Mestorozhdenii (Oil Field Exploitation), 775 p., Moscow
and Leningrad, 1949.

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**USSR/Petroleum
Oil Deposits
Petroleum Industry**

Apr 49

PA 54/49T98
"Announcing That the Stalin-Prize-Winning Book,
'Scientific Principles in the Exploitation of Oil
Deposits' Is Available for Purchase" 1 p
"Borgeret Byul" No 4

A. P. Krylov, M. M. Glogovskiy, M. F. Mirehink,
M. M. Nikolayevskiy, and I. A. Charniy compiled,
this 416-page critical survey of existing methods
of developing oil strata. Gives theoretical and
practical bases for developing deposits, from
viewpoints of geology, hydrodynamics, and economics.
Example of a detailed application of the method de-
veloped by authors. Book is designed for geologists,
engineer-technicians of the petroleum industry, sci-
entific workers, and students of the advanced petro-
leum and geological schools.

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PA 65/49T104

USSR/Petroleum - Literature
Oil Fields

Jul 49

"New Books" 3/4 p

"Energet. Byul" No 7

A. P. Krylov, M. M. Ologovskiy, M. F. Mirchink,
N. M. Nikolayevskiy, and I. A. Charny's "Scientific
Principles in Development of Oil Fields," published
by Gostoptekhnizdat, gives critical evaluation of
existing methods. Presents theoretical and practical
basis for developing fields from standpoint of
geology, hydrodynamics, and economics. Gives
complex example of authors' methods. Book intended
for geologists, scientists, engineers, and students.
65/49T104